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BEFORE THE

**Federal Communications Commission** RECEIVED

WASHINGTON, D.C. 20554

DEC - 8 1993

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

In the Matter of

Amendment of the Commission's  
Rules to Establish New Personal  
Communications Services  
Technologies

)  
)  
) 92-100  
) General Docket No. 90-314  
) ET Docket No. 92-100  
)  
) RM-7140, RM-7175, RM-7617,  
) RM-7618, RM-7760, RM-7782,  
) RM-7860, RM-7977, RM-7978,  
) RM-7979, RM-7980,  
) PP-35 through PP-40,  
) PP-79 through PP-85

To: The Commission

**PETITION FOR RECONSIDERATION  
OF THE SECOND REPORT AND ORDER**

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Dated: December 8, 1993

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Pursuant to Section 1.429 of the Commission's Rules and Regulations, the American Petroleum Institute ("API") hereby submits its Petition for Reconsideration of the Second Report and Order ("Second R&O"), in the above-captioned proceeding.<sup>1/</sup> While API applauds the Commission's attempt to provide an effective framework for 2 GHz microwave spectrum sharing between Private Operational-Fixed Service (POFS) operations and Personal Communications Services (PCS), API is convinced that problems exist with the regulations adopted by the Commission. API believes that if left unresolved, these problems could endanger the public safety, slow the deployment of PCS service, and significantly strain the Commission's resources. Accordingly, API seeks reconsideration of the Commission's Second R&O as discussed below.

<sup>1/</sup> Second Report and Order, 58 Fed. Reg. 59,174, (November 8, 1993).

## **I. BACKGROUND STATEMENT**

1. The American Petroleum Institute is a national trade association representing over 200 companies involved in all aspects of the oil and gas industries, including exploration, production, refining, marketing and pipeline transportation of petroleum, petroleum products and natural gas. Among its many activities, API acts on behalf of its members as spokesperson before federal and state regulatory agencies and legislative bodies. The Telecommunications Committee is API's primary committee concerned with telecommunications regulatory matters. It is supported by licensees that are authorized by the Commission to operate, among other facilities, point-to-point microwave systems in the Private Operational-Fixed Microwave Service ("POFS") in the 1.85-1.99 GHz, 2.13-2.15 GHz and 2.18-2.20 GHz ("2 GHz") bands which are being made available to PCS interests by the Commission in this proceeding.

2. API has participated in every phase of this proceeding and remains concerned about the relocation of fixed microwave licensees from current spectrum assignments which offer the reliable telecommunications capabilities necessary to perform sensitive petroleum and natural gas production and transportation functions. API is also quite concerned about several unresolved technical standards issues relating to spectrum sharing between POFS and PCS operations. API is convinced that unless the FCC modifies its POFS/PCS spectrum sharing regulations, deployment of PCS will be slowed, and POFS service interruptions will be triggered creating the potential for harm to the public.

**II. THE POFS/PCS SPECTRUM SHARING PROPOSALS MUST BE MODIFIED**

3. The Commission must reconsider its adoption of PCS/POFS interference calculation methods. Additionally, there must be a clarification that formal frequency coordination will be required for deployment of PCS in a "shared spectrum" environment. Moreover, the Commission must adopt specific formal sanctions to be applied to parties who create harmful interference to sensitive fixed operations.

**A. The Commission Should Defer Adoption of an Interference Calculation Model Since Industry Consensus is Forthcoming.**

4. API is pleased that the Commission has agreed to adopt the Telecommunications Industry Association's ("TIA") revised Bulletin TSB10-E<sup>2/</sup> criteria to provide interference protection to POFS operations from PCS transmissions upon its completion.<sup>3/</sup> The working group developing the new standard encompasses representatives from a broad spectrum of organizations involved in the telecommunications industry including PCS and POFS interests, and the effort to develop the new standard is aimed at explicitly addressing issues related to potential PCS interference to fixed microwave operations. Accordingly, API concurs with the Commission that adoption of the TIA interference threshold standard is appropriate.

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<sup>2/</sup> When revised the current TIA Bulletin 10-E will be renumbered as TSB10-F. Second R&O at ¶ 150.

<sup>3/</sup> Id. at FN. 116.

5. Nonetheless, API is very concerned that the Commission's PCS/POFS spectrum sharing rules specifically stipulate a method for calculating estimated interference to fixed microwave operations from PCS operations.<sup>4/</sup> Apparently, the Commission has opted to simply adopt an internally selected interference calculation method. API believes that allowing a number of calculation methods for determining whether a proposed PCS operation will violate the revised Bulletin TSB10-F standard with respect to POFS operations is unwise and will create needless uncertainty.

6. API asks that the Commission not allow various interference calculation methods to be used, since a single, more appropriate calculation method is proposed for inclusion within the revised TIA Bulletin TSB10-F. Using the method proposed in TSB10-F will not delay deployment of PCS systems since, as the Commission notes, the new TIA Bulletin should be forthcoming in the very near future, and should be available prior to the licensing of any PCS systems. Moreover, the TIA calculation method has broad support due to the fact that it is being devised by a wide spectrum of industry participants as part of a voluntary consensus standard process. Certainly, a method with such wide support is preferable, since hasty adoption of a method not widely-recognized as technically valid or widely agreed-upon by the affected community, will create significant difficulties which will impede the negotiation process as well as the implementation of PCS.

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<sup>4/</sup> Second R&O Appendix D, "A Procedure for Calculating PCS Signal Levels at Microwave Receivers". This procedure is apparently incorrectly referenced in Rule Section 99.233(d) as Appendix C.

7. For example, API notes that for the Special Mobile Radio ("SMR") Service the Commission has adopted an approach by which applicants who do not meet the Commission's specific separation criteria<sup>5/</sup> may deploy facilities pursuant to waiver of the Commission's rules upon, among other things, submission of an exhibit showing that objectionable interference to other Commission licensees would not occur. Unfortunately, interference studies prepared for such purposes which have been based on different analytical methods (such as the R6602 and Technote 101 models) have presented markedly differing conclusions when applied to identical cases. This approach lacks uniformity and, has led to disputes between SMR licensees, which the Commission has had to expend resources to resolve. These disputes have triggered business difficulties for SMR licensees as well as service delays for customers of SMR systems. However, these consequences pale in comparison to the problems which could be created due to disagreements between POFS and PCS interests over which calculation method should be used in a given situation.

8. Unfortunately, because the Appendix D procedure adopted by the Commission is different from that to be included in TSB10-F, it is very likely that similar disagreements over whether a proposed PCS operation will create objectionable interference to POFS operations will occur. This potential for disagreement over the appropriate option holds the potential for disruption of POFS operations which provide telecommunications essential to the protection of the public health and safety. Accordingly, the factors of public safety protection, expeditious

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<sup>5/</sup> 47 C.F.R. § 90.621(2)(b) and (4) (1992).

deployment of PCS, avoidance of protracted interference disputes as well as the avoidance of additional strain on Commission resources, compel the Commission to reconsider its adoption of calculation procedures in Appendix D. Instead, the Commission should specify that only the new TIA standard, which will include a consensus interference calculation method, is acceptable. Since this standard will incorporate the best thinking of the microwave community and the PCS industry, the TIA standard will be the best choice for a means by which PCS may be expeditiously deployed in a shared spectrum environment. Moreover, adoption of a single standard approach will not preclude expeditious deployment of PCS systems, since PCS licensees may seek waivers of the Commission's rules to operate facilities on a non-interference basis which do not fully comply with the Commission's interference standard.<sup>6/</sup>

**B. Frequency Coordination Rules Must Be Adopted for Licensed PCS Operations.**

9. API is alarmed to note that at no point in the Second R&O does the Commission adopt any formal frequency coordination procedures for the offering of licensed PCS services in a shared spectrum environment. API has grave doubts as to the workability of the Commission's plan unless some form of formal frequency coordination is required. The Commission must provide guidance concerning precisely how licensed PCS operators must coordinate operation on 2 GHz frequencies in areas where incumbent fixed 2 GHz operations exist and what type of

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<sup>6/</sup> API notes that adoption of TIA interference threshold should not delay finalization of PCS rules on procedural grounds, since comment on such an adoption previously has been solicited and analyzed by the Commission in this proceeding. See: Notice of Proposed Rulemaking and Tentative Decision, 7 FCC Rcd. 5676, 5719 (1992); Second R&O, at ¶s 145-146 (1993).

documentation must be provided to enable the Commission to ensure that proper coordination has been accomplished.

10. It appears that the Commission presumes that the PCS licensee would simply "self coordinate" and certify in its application that its operations will not interfere with those of incumbent fixed licensees. Such a scenario, if intended by the Commission, clearly will create unnecessary hazards to the public. It has been made abundantly clear to the Commission from the inception of this proceeding, that the sensitive fixed operations now conducted on 2 GHz assignments cannot tolerate any interference when critical functions are being performed. Accordingly, API seeks Commission assurances that formal coordination by a third party such as is now required by the Commission's rules for microwave common carrier licensing<sup>2/</sup> will be required prior to the issuance of any license to a PCS applicant, including the provision that a prior notification of the new system's coordination be provided to all potentially affected fixed licensees within the proposed PCS operational area. This approach will ensure that independent coordination studies provide a review of interference potential, and that incumbent licensees facing potential interference are placed on notice and may take steps to review the proposed PCS deployment with a view toward minimization of interference potential. In consideration of the serious public safety ramifications of objectionable interference to fixed operations and the inexperience of all parties in operating in a mobile/fixed shared frequency environment, no lesser alternative is sufficient. The public interest requires that formal coordination and notification procedures be a mandatory element of the PCS

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<sup>2/</sup> 47 C.F.R. §§ 21.706(c), 21.100(d) (1992).

licensing rules. Further, by removing system deployment uncertainties, formal coordination will considerably expedite PCS service offerings to the public.

**C. The Commission Must Adopt Specific Penalties to Deter Creation of Objectionable Interference to Sensitive Fixed Microwave Operations.**

11. Clearly, a specific interference threshold and interference calculation standard must be adopted to afford all POFS and PCS licensees an acceptable means by which to effectively share spectrum. Moreover, specific coordination procedures are absolutely essential to protect the public safety and to promote expeditious deployment of PCS. Nonetheless, those procedures alone will be insufficient to ensure the public safety and to promote the smooth implementation of PCS in a shared spectrum environment, unless the Commission makes it clear that those who introduce PCS harmful transmissions into the microwave environment will be sanctioned where appropriate. Accordingly, the Commission must adopt specific regulations which will ensure that in any instances where harmful interference to fixed operations is created, prompt remedial and punitive actions will be taken.<sup>8/</sup>

12. Specifically, API seeks assurances from the Commission that where PCS operations objectionably interfere with fixed links, and where the PCS licensee is notified by the POFS licensee that such interference is occurring, the PCS licensee

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<sup>8/</sup> API notes that PCS systems will operate on a co-primary basis with POFS operations. Commission policy requires that where disputes arise involving interference between co-primary emerging technologies and fixed microwave licensees, the facility first licensed will be afforded interference protection from the offending facility. First Report and Order and Third Notice of Proposed Rule Making, ET Docket, No. 92-9, at Fn. 34, (1992). API simply requests that the Commission establishes procedures which will ensure adequate measures to enforce its interference policy.

must immediately cease the subject PCS system's operation until the interference problem has been resolved. Moreover, the Commission must adopt clear sanctions to ensure full cooperation by PCS licensees with POFS licensees who receive harmful interference to their operations. The Commission must establish a scale of significant fines and/or forfeitures specifically to be applied in such instances which will deter violations, since the consequences of such violations could be serious to the public safety. Additionally, in instances where interference violations occur, the Commission must make available expedited procedures to ensure the timely resolution of complaints. While API believes that the vast majority of PCS licensees and unlicensed PCS vendors will act responsibly to minimize interference disputes, the potentially serious consequences of routine violations of interference standards are such that the public interest compels a clear and effective policy to deter violations.

### **III. CONCLUSION**

13. While API supports the Commission's attempt to minimize the potential for interference to sensitive POFS operations in a POFS/PCS spectrum-shared environment, the rules adopted by the Commission in the Second R&O are inadequate to ensure successful PCS deployment without disruption of POFS operations. Accordingly, the Commission should reconsider incorporating the Appendix D interference calculation method in its PCS rules and should adopt the industry-wide standard now being developed by TIA. Moreover, the Commission must ensure that formal third party frequency coordination and notification procedures are in place before any PCS licenses may be granted. Finally, in order to deter violations of interference criteria, the Commission must develop specific sanctions and/or penalties for those who refuse to strictly adhere to the Commission's

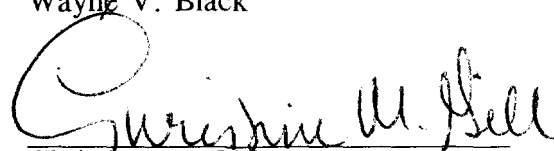
shared spectrum technical standards. The actions requested by API will ensure that PCS interests are given complete information concerning interference potential prior to commencement of operations and may design systems which will fully comply. Such actions also will promote a heightened level of certainty concerning technical and interference issues, for PCS licensees, thereby allowing PCS deployment to proceed expeditiously with a minimum of technical and possibly related legal and/or administrative difficulties.

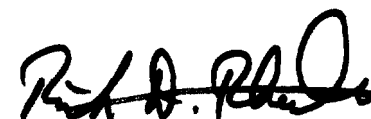
**WHEREFORE, THE PREMISES CONSIDERED,** the American Petroleum Institute respectfully requests the Commission to take actions consistent with the views expressed herein.

Respectfully submitted,

**The American Petroleum Institute**

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Dated: December 8, 1993

## CERTIFICATE OF SERVICE

I, Terri Thomas, a secretary in the law firm of Keller and Heckman, do hereby certify that a copy of the foregoing Petition for Reconsideration of the Second Report and Order has been served this 8th day of December 1993 by hand delivery to the following:

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A handwritten signature in black ink, appearing to read "Terri Thomas", written over a horizontal line.

Terri Thomas

\* Delivered by First Class U.S. mail, postage prepaid.